

## Korean Species of the Genus *Hendecaneura* Walsingham (Lepidoptera, Tortricidae)

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**Abstract** Two species of the genus *Hendecaneura* Walsingham in Korea, *H. cervina* Walsingham and *H. apicipicta* Walsingham, are reviewed. The latter is newly added to the moth fauna of Korea. *Styrax obassia* Sieb. et Zucc. is first recorded as the host plant of *H. apicipicta*. The adults and genitalia are illustrated.

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**Key words** Tortricidae, *Hendecaneura*, *cervina*, *apicipicta*, new record, Korea

### INTRODUCTION

*Hendecaneura* Walsingham, 1900 is a small genus of the tribe Eucosmini represented by six species from the Eastern Asia and one species from the East of USA (Heinrich, 1923; Kawabe, 1982; Powell, 1983; Nasu, 1996; Nasu & Komai, 1997). Only one species of the genus has been recorded from Korea until now (Byun, Bae & Park, 1998; Razowski, 1999a,b; Byun, 1999). Examining the Korean tortricid moths\* recently collected, we recognized two species of *Hendecaneura* including an unrecorded species from Korea. In the following lines we record the species from Korea, with the illustrations of adults and genitalia.

### SYSTEMATICS

#### *Hendecaneura cervina* Walsingham 때죽애기잎말이나방 (新稱)

(Figs 1, 3, 5)

*Hendecaneura* (?) *cervinum* Walsingham, 1900: 403; Matsumura, 1905: 233; Obraztsov, 1952: 250.

*Hendecaneura cervinum*: Issiki, 1922: 290; Inoue, 1954: 96; Issiki, 1957: 62, pl. 9, fig. 290 (adult), (*cervicum*, misspelling); Oku, 1969: 19 (*cervicum*, misspelling); Kawabe, 1982, 1: 132, 2: 176, pl.

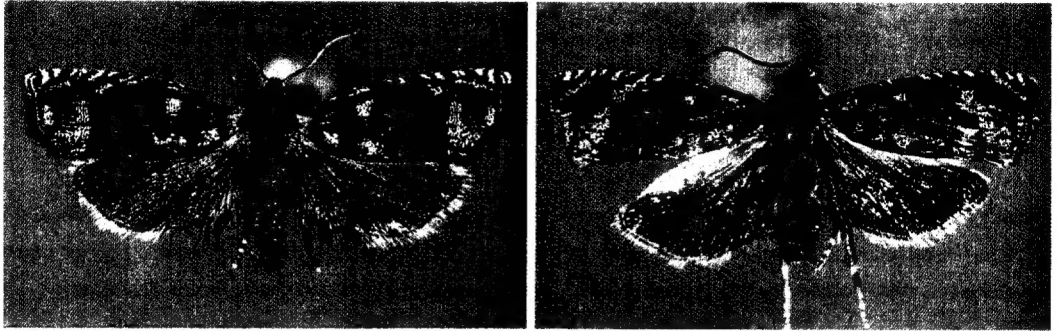
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\* The most specimens examined here are in the collection of the Department of Biology, University of Incheon, Incheon, Korea (UIB). The remaining one was collected under the Korea-Japan Cooperative Investigation Program on Lepidopterous Fauna (Insecta) (Preliminary Investigation in 2000), and preserved in the collection of the first author.

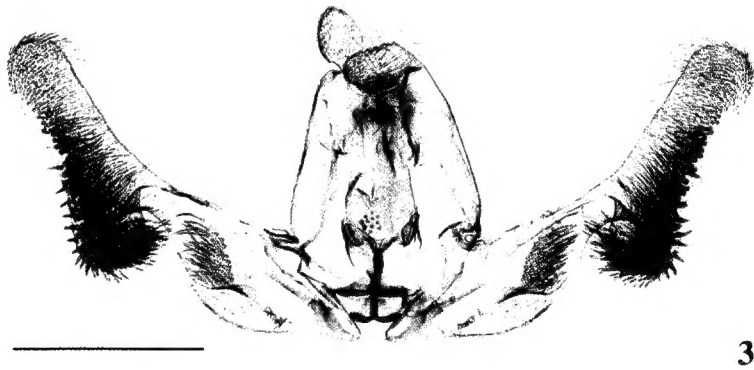
28, fig. 3 (adult); Sugi, 1989: 904; Razowski, 1999b: 465; Byun, 1999: 20, figs 4, 9, 16 (adult, ♂ ♀ genitalia).

*Hendecaneura apicipictum*: Kawabe, 1982, 2: pl. 28, fig. 1 (adult). [Missid.].

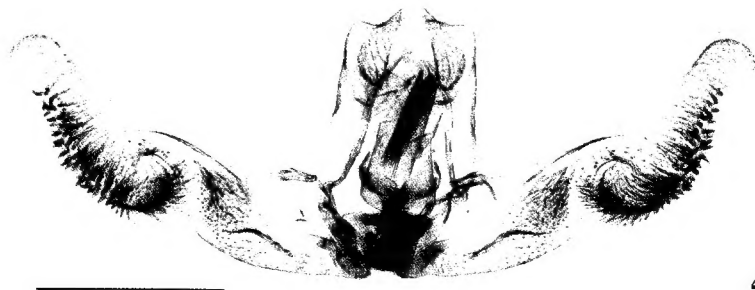
**Diagnosis.** This moth is a small sized olethreutine (wing expanse 13–16 mm) and characterized by



**Figs 1-2.** Adults: 1. *Hendecaneura cervina* Walsingham, ♂; 2. *H. apicipicta* Walsingham, ♂.



3



4

**Figs 3-4.** Male genitalia: 3. *Hendecaneura cervina* Walsingham, UIB201; 4. *H. apicipicta* Walsingham, UIB200. (Scales = 0.5 mm).

yellow-brown head and thorax, and blackish brown forewing with yellow-brown basal and apical patches and some transversal metallic blue streaks. This species is superficially similar to the next species, *H. apicipicta*, but is distinguished by having yellow-brown head and thorax, yellow-brown basal patch of forewing, in male cream-yellow erected scales curved in tips on the face and yellow-brown costal fold, slender oblong cucullus in the male genitalia (in the latter oval cucullus broader ventrad), and by not having a tuft of hair-like scales on the base of cell in the male hindwing.

Male scent organs. Forewing with a costal fold and on the upper side with a small circular pocket near the junction of 1A and 2A veins, which is covered with broad scales.

Male genitalia (Fig. 3). Tegumen with a pair of small mound-like lobes dorsolaterally. Uncus mound-like. Socius short, oblong lobe, setose. Gnathos weakly sclerotized. Aedeagus short, cone-shaped. Valva constricted deeply (neck distinct, narrow); basal opening large, with many thick setae on the posterior



**Fig. 5.** Female genitalia of *Hendecaneura cervina* Walsingham, UIB202. (Scale = 0.5 mm).

edge; sacculus with mound-like lobe; cucullus slender oblong.

Female genitalia (Fig. 5). Papilla analis slender. Apophysis posterioris as long as apophysis anterioris. Tergite 8 concaved in the anterior edge. Sternite 7 broadly sclerotized, rectangular. Ostium bursae located in a deep incision on the posterior edge of sternite 7. Lamella postvaginalis sclerotized, prolonged, spinulose on the surface, fused with the incision. Ductus bursae, tortuous, sclerotized medially. Corpus bursae large, globular, spinulose on the inner surface, with two horn-shaped signa different in size.

*Material examined.* KOREA: Mt. Miruk, Iksan City, Jeollabuk-do, 1 ♂, 14 VI 1997 (Bae *et al.* leg.), UIB. Mt. Tonggo, Uljin-gun, Gyongsangbuk-do, 3 ♂ 3 ♀, 26-31 VI 2000 (Bae *et al.* leg.), genitalia slide UIB201 ♂, UIB202 ♀, UIB. Mt. Odae, Pyeangchang-gun, Gangwon-do, 1 ♂, 22 VII 2000 (Nasu leg.), collection of Y. Nasu.

*Distribution.* Korea, Japan.

*Host plant.* Styracaceae: *Styrax japonica* Sieb. et Zucc. (Oku, 1969).

*Remarks.* Kawabe (1982) gave the illustration of the male adult of *H. apicipicta*. The first author had an opportunity of examining the specimen and concluded that it is not *H. apicipicta* but *H. cervina* on the basis of the characters of male genitalia.

### ***Hendecaneura apicipicta* Walsingham** 죽동백애기잎말이나방 (新稱)

(Figs 2, 4)

*Hendecaneura apicipictum* Walsingham, 1900: 403; Matsumura, 1905: 233; Issiki, 1922: 290; Obraztsov, 1952: 250 (*spicipictum*, misspelling); Inoue, 1954: 96; Kawabe, 1982, 1: 132, 2: 176; Sugi, 1989: 904; Razowski, 1999b: 465.

*Diagnosis.* This moth has a blackish brown forewing with yellow-brown apical patch and some transversal metallic blue streaks (wing expanse 12-13 mm). The species resembles the preceding species, *H. cervina*, but the distinguishing characters are noted in the diagnosis for *H. cervina*. This species is also superficially similar to *Hedya walsinghami* Oku, but differs from it in having dark brown head and thorax (in the latter blackish brown), yellow-brown apical patch of forewing, and costal fold in male. The adult and male genitalia are illustrated for the first time.

Male scent organs. Forewing with costal fold and circular pocket as shown in *H. cervina*. Hindwing with a tuft of hair-like scales at the base of cell on the upper side as shown in *H. rhododendrophaga* Nasu et Komai (Nasu & Komai, 1997), in *H. cervina* such a tuft absent.

Male genitalia (Fig. 4). Tegumen with a pair of small mound-like lobes dorsolaterally. Uncus triangular. Socius short, oblong lobe, setose. Gnathos weakly sclerotized. Aedeagus short, cone-shaped. Valva constricted deeply (neck distinct, narrow, curved ventrad); basal opening large, with many thick setae on the posterior edge; sacculus with mound-like lobe; cucullus oval, broader ventrad.

*Material examined.* KOREA: Mt. Hwaya, Yangpyong-gun, Gyonggi-do, 1 ♂, em. 23 V 1999 (Bae *et al.* leg.), ex *Styrax obassia*, genitalia slide UIB200 ♂, UIB. Mt. Balgyo, Hweingseong-gun, Gangwon-do, 1 ♂, 7 VII 1998 (Paek *et al.* leg.), UIB.

*Distribution.* Korea (new record), Japan.

*Host plant.* Styracaceae: *Styrax obassia* Sieb. et Zucc. (new record).

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